

## Abstract of the disclosure:

There are provided proteins having the amino acid sequences represented by SEQ ID NOS: 2 and 4; proteins having amino acid sequences derived from these amino acid sequences by deletion, substitution or addition of one to several amino acids; and nucleotide sequences encoding the same; transgenic non-human animals with altered expression level of a serine protease BSSP5; an antibody against BSSP5; and a method for detecting BSSP5 in a specimen by using the antibody. The BSSP5 provided by the present invention can be used for treating and diagnosing various diseases such as Alzheimer's disease (AD), epilepsy, cancer, inflammation, sterility and prostatic hypertrophy and detecting pancreatitis in various tissues including brain, prostate gland, placenta, pancreas and spleen.

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